### **Sexually Transmitted Diseases (Continued)**

Gonorrhea/Chlamydia – Unprotected sexual contact with infected person; a potential attack rate of 1–50 per month could occur.

- Threat year-round; countrywide
- Symptoms (in men) none to burning sensation when urinating or discharge
- Symptoms (in women) none to burning when urinating to increased vaginal discharge
- Mild; outpatient treatment

Prevention: Abstinence; latex condoms; not sharing needles; hepatitis B vaccine, if directed by medical authority.

#### **Water Contact Diseases**

Leptospirosis – Wading, swimming, and other contact with water/mud contaminated with infected animal urine; a potential attack rate of 1–10 percent a month could occur.

- Threat year-round
- Symptoms fever, chills, nausea
- Hospitalization of 1-7 days

Prevention – Do not swim/wade in unapproved water; wash skin and clothing after exposure to freshwater streams/ponds.

#### **ENVIRONMENTAL RISKS**

#### Short-term health risks

- Water contaminated with raw sewage
- Runoff containing fecal pathogens

#### Long-term health risks

- Air pollution in urban areas
- Water contaminated with industrial pollutants

#### HAZARDOUS ANIMALS AND PLANTS

**Venomous Snakes** – Cobras, kraits, pit vipers, vipers, and coral snakes are present countrywide and have potentially lethal venom: if bitten, seek urgent medical attention!

Prevention – Do not handle any snake.

# **Hazardous Animals and Plants (Continued)**

Centipedes, Millipedes, Scorpions, Spiders, and Wasps/Bees – Large and aggressive species are present countrywide; they are capable of inflicting painful bites or stings, or secreting fluids that can blister skin.

Prevention – Shake out boots/bedding/clothing prior to use; never walk barefoot; avoid sleeping on the ground; seek medical attention if bitten.

**Leeches** – Common in freshwater ponds and streams, and on plant foliage during the monsoon season.

Prevention – Wear DEET on exposed skin; as tactical situation permits, avoid wading in freshwater ponds and streams.

**Marine Animals** – Venomous cone shells, sea snakes, stonefish, jellyfish, and sharp corals are numerous at ocean beaches.

Prevention – Swim at approved beaches; do not handle any marine animal; seek medical attention if stung/bitten.

**Hazardous Plants** – Numerous toxic plants can cause skin/lung irritation if touched/burned; poisoning can occur if these plants are chewed/eaten.

Prevention – Do not touch, chew, eat, or burn unfamiliar plants; wash contaminated skin/clothing after contact.

#### **DISTRIBUTION UNLIMITED**

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# DEPLOYMENT HEALTH GUIDE: THAILAND



This country-specific guide should be used in conjunction with GTA 08-05-062, *Guide to Staying Healthy*, and is intended to provide information that can help reduce your risk of Disease and Non-battle Injuries (DNBI) when deployed. This health threat and countermeasure information is based on the most current data available from U.S. Department of Defense medical agencies at the time of production. In addition to the information in this guide, you should also receive force health protection, health threat, and preventive medicine countermeasures training/briefings prior to and, as required, throughout the length of your deployment.



#### THAILAND OVERVIEW

Location – Thailand is located in Southeastern Asia, bordering the Andaman Sea and the Gulf of Thailand, southeast of Burma. Thailand is slightly larger than California.

Climate – Tropical monsoonal climate with four distinct seasons existing in most regions: dry during January and February, hot from March–May, wet from May–October, and cool during November and December. Temperatures rarely drop lower than 55° F or rise higher than 95° F. The humidity is highest from May to October.

Rainfall – Rainfall varies from 40 inches in the northern highlands and Korat Plateau to 120 inches in the western mountains and southern peninsula.

Terrain – Thailand is divided into five geographic regions. The southeast coast is a low fertile plain; the northeastern plateau is an undulating tableland with elevations form 400 to 700 feet; the northern and western mountains have peaks up to 8500 feet; the Central Basin is the most heavily populated area; and peninsular Thailand occupies the northern portion of the Malay Peninsula.

Forces of Nature - Typhoons, flooding, flash flooding

#### **RISK ASSESSMENT**

Thailand is at **HIGH RISK**\* for infectious diseases. Without force health protection measures, mission effectiveness will be adversely impacted.

\*Based on a combination of all major infectious diseases that occur in a country, the Armed Forces Medical Intelligence Center (AFMIC) assigns an overall country risk level of low, intermediate, high, or very high risk, as compared to other countries.

#### **INFECTIOUS DISEASES**

#### **Food-borne and Water-borne Diseases**

Consuming contaminated food, water, or ice

Diarrhea, bacterial – A potential attack rate of over 50 percent a month could occur if local food, water or ice is consumed.

- Threat year-round; countrywide
- Symptoms loose, watery or explosive bowel movements
- Recovery of 1–3 days with antibiotics

Hepatitis A — A potential attack rate of 1–10 percent could occur among unvaccinated personnel if local food, water or ice is consumed.

# Food-borne and Water-borne Diseases (Continued)

- Threat year-round; countrywide
- Symptoms none to flu-like illness
- Severe, 1–4 weeks recovery, sometimes initially requiring hospitalization

Prevention – Consume only U.S. military-approved food, water, and ice; hepatitis A vaccine if directed by medical authority.

# **Vector-borne Diseases**

Greatest threat:

Dengue fever - High number of cases possible

- Threat year-round; especially during warmer, wetter months (May–October); countrywide, especially in rural and urban yards/homes
- Transmission day-biting mosquitoes
- Symptoms debilitating fever, severe muscle pain, severe headache, rash
- Hospitalization of 1–7 days likely

Japanese encephalitis - Small number of cases possible

- Threat year-round, especially during warm, wetr months (May–October); countrywide, primarily in rural areas
- Transmission night-biting mosquitoes
- Symptoms often severe with permanent disability; fever, headache, brain inflammation, paralysis, seizures, coma, death
- Hospitalization of over 7 days, often requiring intensive care; many cases preclude return to duty.

Malaria – High number of cases possible

- Threat year-round, especially during warm, wetr months (May–October); countrywide, primarily in rural areas
- Transmission night-biting mosquitoes
- Symptoms fever, chills, sweats; mild to severe, including coma and death
- Hospitalization of 1–7 days likely; prolonged recovery or death possible.

Others: A small, rare, or undetermined number of cases could occur: Chikungunya (mosquito-borne); murine typhus (flea-borne); rickettsioses (spotted fever group; tick-borne); scrub typhus (mite-borne).

Prevention – DEET on exposed skin; permethrin-treated uniforms; permethrin-treated bed nets; malaria prevention pills, as prescribed (critical).

#### **Animal Contact Diseases**

Rabies – Exposure to virus-laden saliva of an infected animal through a bite, scratch or through breathing airborne droplets; risk is among the highest in the world.

- Threat year-round; countrywide
- Initial symptoms pain, tingling, or itching from bite site; chills, fever, muscle aches
- Death likely in the absence of post-exposure prophylaxis

Prevention – Avoid all animals; if scratched or bitten, seek medical attention immediately; pre- and/or post-exposure vaccinations if prescribed by medical authority.

# **Respiratory Diseases**

Avian influenza (H5N1) – Rare cases could occur in U.S. forces exposed to poultry flocks.

- New, highly lethal flu strain emerging in Southeast Asia
- Cases have occurred in poultry and humans in Thailand, with a 50 percent fatality rate in humans.
- Transmission close contact with infected poultry, or consumption of infected poultry products
- Not yet reported to be contagious (person-toperson transmission)

Prevention – Avoid any contact with indigenous poultry; consume only U.S. military-approved poultry and poultry products.

Tuberculosis – Breathing contaminated air droplets from other people (coughing/sneezing)

- Threat year-round; countrywide
- Highest threat from prolonged close contact with local populations
- Symptoms none to cough, chest pain, breathlessness, night sweats
- · Severe illness or death if not treated

Prevention – Avoid close contact with local populations; early detection/treatment reduces severity.

# **Sexually Transmitted Diseases**

Hepatitis B – Unprotected sexual contact with infected person; contact with infected blood/body fluids. Less than 1 percent per month attack rate could occur among unvaccinated personnel.

- Threat year-round; countrywide
- Symptoms jaundice, fatigue, nausea
- Recovery of 1–4 weeks; occasional hospitalization; possible permanent liver damage